

POKOVA, M.V.

Regenerative capacity of different regions of the body in  
hydras. Nauch.dokl.vys.shkoly;biol.nauki no.4:69-71 '58.  
(MIRA 11:12)

1. Rekomendovana kafedroy obshchey biologii Moskovskogo  
meditsinskogo stomatologicheskogo instituta.  
(HYDROZOA) (REGENERATION (BIOLOGY))

*POPOVA, M.V.*  
KULAKOVA, L.A.; KORENCHEVSKIY, K.I.; OL'SHEVSKAYA, N.S.; FARBER, A.M.;  
POPOVA, M.V.; BREZHNEVA, Z.A.; MASSAROVA, E.A., red.; BYKOVA, G.N.,  
tekh.red.

[Economy of Archangel Province; a statistical manual] Narodnoe  
khoziaistvo Arkhangel'skoi oblasti; statisticheskii sbornik.  
[Arkhangel'sk] Arkhangel'skoe knizhnoe izd-vo, 1957. 146 p.  
(MIRA 11:3)

1. Archangel (Province). Statisticheskoye upravleniye.
2. Statisticheskoye upravleniye Arkhangel'skoy oblasti (for Kulakova,  
Korenchevskiy, Ol'shevskaya, Farber, Popova, Breznneva).
3. Nachal'-  
nik Statisticheskogo upravleniya Arkhangel'skoy oblasti (for  
Massarova)  
(Archangel Province--Statistics)

POPOVA, M.V., studentka

Use of Filatov's flap in surgical correction of a relapsing cicat-  
rical contracture of the jaws and in plastic surgery for tongue  
defects. Stomatologiya 38 no.5:31-33 S-0 '59. (MIRA 13:3)

1. Iz kafedry propedevtiki khirurgicheskoy stomatologii (zaveduyushchiy -  
dotsent G.A. Vasil'yev) Moskovskogo meditsinskogo stomatologicheskogo  
instituta (direktor - dotsent G.N. Beletskiy) i Moskovskogo chelyustno-  
litseвого hospitalya (glavnyy vrach - dotsent A.A. Kovner).  
(JAWS--SURGERY) (TONGUE--SURGERY)

POPOVA, M.V.; SMOLKO, G.G.; GARYAINOV, S.A.; STAFEYEV, V.I.

Static characteristics of N-triodes. Radiotekh. i elektron. 10  
no.1:147-156 Ja '65. (MIRA 18:2)

1. Fiziko-tekhnicheskii institut im. A.F. Ioffe AN SSSR.

Z 31042-65

ACCESSION NR: AP5002910

S/0109/65/010/001/0147/0156

AUTHOR: Popova, M. V.; Smolko, G. G.; Garyainov, S. A.; Stafeyev, V. I.

TITLE: Static characteristics of N-transistors

SOURCE: Radiotekhnika i elektronika, v. 10, no. 1, 1965, 147-156

TOPIC TAGS: transistor, N-transistor

ABSTRACT: A detailed exploration of the characteristics of an N-transistor (proposed by V. I. Stafeyev, et al., Rad. i elektronika, 1962, 7, 8, 1404) reveals that this device is kindred to the n-p-n-p transistor. Static input and output characteristics of N-transistors for common-base, common-emitter, and common-collector circuits are described. The input characteristics are voltage-ambiguous (S-type); the output characteristics in the common-base and common-emitter circuits are current-ambiguous (N-type); in the common-collector circuit, the characteristics are practically single-valued. Experimentally

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L 31042-65

ACCESSION NR: AP5002910

determined families of characteristics of diffusion-alloy N-transistors are presented. Orig. art. has: 8 figures.

ASSOCIATION: Fiziko-tekhnicheskiy institut AN SSSR (Physico-Technical Institute, AN SSSR)

SUBMITTED: 09Sep63

ENCL: 00

SUB CODE: EC

NO REF SOV: 002

OTHER: 002

Card 2/2

POPOVA, M.V.; SHAYKOV, V.I.

Temperature dependence of static voltampere characteristics of  
H-bridges. Radiotekh. i elektron. 10 no.10:1893-1897 0 1965.

(MIRA 18:10)

L 60879-65

ACCESSION NR: AP5020126

UR/0109/65/010/008/1480/1485  
621.382.333.4

AUTHOR: Smolko, G. G.; Osipov, V. V.; Stafeyev, V. I.; Garyainov, S. A.; Popova,  
M. V. 10  
B

TITLE: N-transistors as active circuit elements

SOURCE: Radiotekhnika i elektronika, v. 10, no. 8, 1965, 1480-1485

TOPIC TAGS: N transistor, common emitter circuit, p n p n junction, p n p n transistor

ABSTRACT: A description is given of the use of N-transistors in common-emitter circuits. Applications include switching circuits, converters, pulse generators, and flip-flops. The transistor has a p-n-p-n structure between emitter and base, so that its input volt-ampere characteristics are of the S type (see Fig. 1 of the Enclosure). The low value of the switching voltage depends on the collector current and varies within 0.2-2 v. The output volt-ampere characteristic (Fig. 2) shows a sharp decrease in negative resistance with increase in bias. Voltage required for maximum current does not exceed 0.2 v; collector current can reach 30-50 mamp. Within a wide range of collector voltages, minimum collector current is in tens of microamperes. Orig. art. has: 10 figures. [DW]

Card 1/4

L 60879-65

ACCESSION NR: AP5020126

0

ASSOCIATION: none

SUBMITTED: 11May64

ENCL: 02

SUB CODE: EC

NO REF SOV: 002

OTHER: 000

ATD PRESS: 4063

Card 2/4

L 60879-65

ACCESSION NR: AP5020126

ENCLOSURE: 01

0

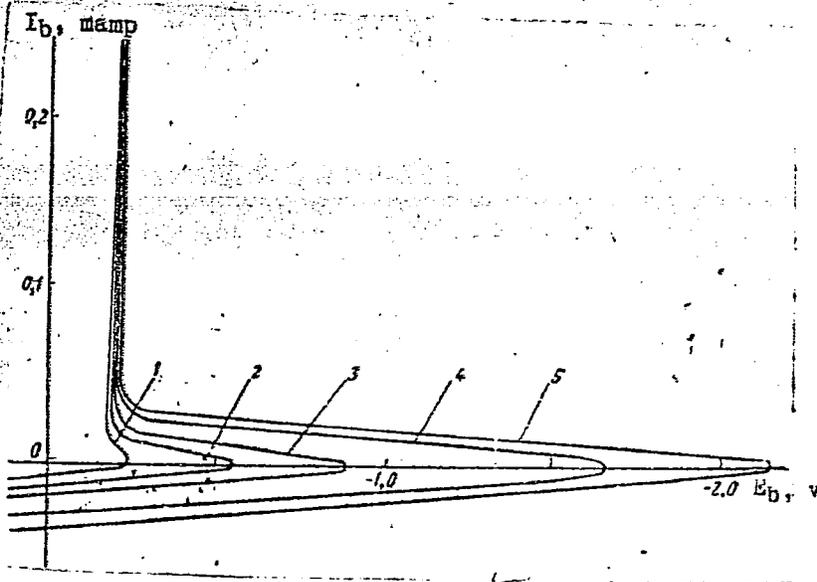


Fig. 1. Input characteristics at various collector currents ( $T = 20.5C$ )

- 1 - 0.02 mamp;
- 2 - 0.03 mamp;
- 3 - 0.05 mamp;
- 4 - 0.08 mamp;
- 5 - 0.1 mamp.

Card 3 / 4

L 60879-65

ACCESSION NR: AP5020126

ENCLOSURE: 02

0

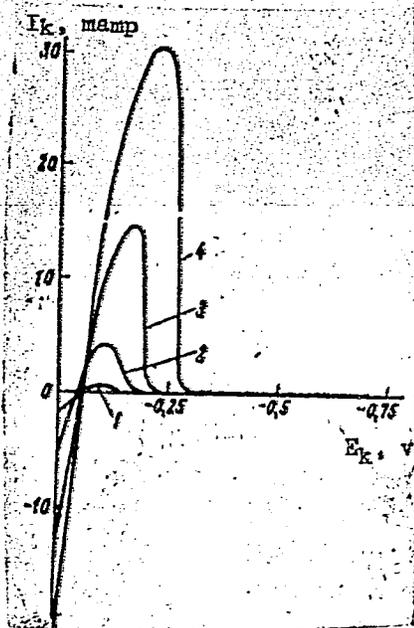


Fig. 2. Output characteristics at various base biases

- 1 - -0.25 v; 2 - -0.3 v;
- 3 - -0.35 v; 4 - -0.4 v.

Card

*jll*  
4/16

L 10390-66 EWT(1)/EEC(k)-2/T/EWA(h) IJP(c)

ACC NR: AP5026909

SOURCE CODE: UR/0109/65/010/010/1893/1899

AUTHOR: Popova, M. V.; Stafeyev, V. I. 44 44

14  
3

ORG: none

TITLE: Effect of temperature on static current-voltage characteristics of N-transistors 25,44

SOURCE: Radiotekhnika i elektronika, v. 10, no. 10, 1965, 1893-1899

TOPIC TAGS: four region transistor, current voltage characteristic

ABSTRACT: An experimental investigation of the effect of temperature (within -40+40C) on the static current-voltage characteristics of common-emitter, common-base, and common-collector 4-region transistors is reported. In the first two circuits, a constant collector current of 10 microamp was held. In the third circuit, a constant emitter voltage of 2.4 v was maintained. Input and

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UDC: 621.392.3.001  
2

L 10390-66

ACC NR: AP5026909

output characteristics for 8 temperatures within the above range are presented. In the common-emitter circuit, the residual voltage falls off almost linearly with the increasing temperature; at +20C, the negative resistance vanishes; maximum collector current increases 20 times within -40+40C. In the common-base circuit, the residual voltage falls off, too, almost linearly; in some specimens at lower temperatures, the collector current reversed under closed-transistor conditions. Orig. art. has: 7 figures.

SUB CODE: 09 / SUBM DATE: 20Jun64 / ORIG REF: 003

jw  
Card 2/2

FRISHBERG, V.D.; POPOVA, M.Ye.; PERMITINA, K.S.

Properties of dull components (durain) of coals from the Balakhenka series in the Kuznetsk Basin. Koks i khim.no.2:5-12 '56.(MIRA 9:7)

1.Vostochnyy uglekhimicheskiy institut.  
(Kuznetsk Basin--Coal--Analysis)

SVIRIDOVA, I.K.; POPOVA, M.Ye.

Studying the balance of perched water and the translocation of  
nitrogen and ash elements beyond the limits of the soil profile.  
Trudy Vor. gos. zap. no.13:165-173 '61. (MIRA 16:8)

(Voronezh Preserve--Runoff)  
(Voronezh Preserve--Forest soils)

POPOVA, M.Ye.

Using the petrological method of study in order to determine  
the quality of coal. Trudy Lab.geol.ucl. no.6:139-143 '56.

(MLRA 10:2)

1. Vostochnyy nauchno-issledovatel'skiy uglekhimicheskiy  
institut.

(Coal--Testing)

POPOVA, N.

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Labor of women in the U.S.S.R. Sots, trud no.3:3-14 Mr '57.  
(Women—Employment) (MIRA 10:4)



ORECHKIN, D.; POPOVA, N.; RYKOVA, I.; SHEPOT'KO, O.

First experiments, first discoveries. Pozh.delo 9 no.2:25 7 '63.  
(MIRA 16:3)

(Fire extinction—Chemical systems)

POPOVA, N.

PA 26/49T91

USSR/Radio Receivers, Crystal Controlled Jan 49

"Crystals Which Replace Triode Tubes," N. Popova,  
2 pp

"Radio" No 1

Gives construction, characteristics, and application of new crystadyne, called a transitron, capable of replacing triodes in some cases. Silicon, unsatisfactory because of instability under load, is replaced by germanium in the crystal pair consisting of germanium with tungsten spirals.

26/49T91

DIANKOVA, N.; KURTEVA, R.; POPOVA, N.

Reactive dyes. *Khim i industriia* 34 no. 1: 25-29 '64.

POPOVA, N., kandidat biologicheskikh nauk.

Treasures of the sea. Tekh.molod. 21 no.10:22-24 0 '53. (MIRA 6:10)  
(Marine biology)

POPOVA, N.

Enterprises of the city beyond the arctic circle. Obshchestv.pit.  
no.7:43-44 J1 '60. (MIRA 13:8)

1. Nachal'nik otдела obshchestvennogo pitaniya Upravleniya trgovli  
pri Noril'skom gornometallurgicheskom kombinatе.  
(Noril'sk--Restaurants, lunchrooms, etc.)

1. POPOVA, N. A.
2. USSR (600)
4. Coal - Mosty Depression
7. Report on the prospecting work for coal in the northern part of the Mosty Depression in 1944-1945. (Abstract). Izv. Glav. upr. geol. kon. no. 2, 1947.

9. Monthly List of Russian Accessions, Library of Congress, March 1953. Unclassified.

POPOVA, N., zubnoy vrach

Rare anomaly of the teeth. Zdrav. Belor. 4 no.2:65 P '58.  
(MIRA 13:8)

1. Mostovskaya rayonnaya bol'nitsa Grodnenskoj oblasti.  
(TEETH--ABNORMITIES AND DEFORMITIES)

POPOVA, N. A. and Grinshteyn, A. M.

"Reflex Dermographia"

Vrachebnoye Delo, Kharkov, 1926

POPOVA, N. A. and I. M. Bel'gov

"Necrotic Myelitis" in

Problems of Clinical and Experimental Neuropathology and Psychiatry, Kharkov, 1936

POPOVA, N.; DIOMIDOVA, N.

Great Contribution to the Science of Life (By Doctor of Biology N. Diomidova and  
Candidate of Medicine N. Popova)

Soviet Source: Izvestia, Sept. 21, p. 2

Current Digest of the Soviet Press (in  Library), Vol, 2 , No. 37 , 1950, P. 4

POPOVA, N. A.

USSR/Medicine - Antibiotics

Jan/Feb 53

"Streptomycin (I) and Paraaminosalicylic Acid (II) in the Treatment of Ulcerous Enterocolitis Affecting Patients With Tuberculosis," Prof D.A. Manucharyan; N.P. Krylova and N.A. Popova, Sci Associates, Moscow City Sci-Res Tuberculosis Inst

Prob Tuberk, No 1, pp 50-55

The growing use of I and the Na salt of II has reduced the incidence of TB ulcerous afflictions of the intestinal tract. I and II act selectively on specific TB infiltrations. Observations are yet too few to serve as a basis for evaluation of the differences in the therapeutic effects of I alone as compared with I and II. One of the reasons for the decrease in incidence of ulcerous enterocolitis can be found in the improvement of material well-being of the population. There is no doubt that I is superior to II. II has not only bacteriostatic properties, but also an anti-inflammation effect.

POPOVA, N.A., kandidat tekhnicheskikh nauk.

Rheological properties of confectionery products. Trudy VNI  
no.9:159-183 '54. (MLA 7:8)  
(Confectionery) (Pastry)

POPOVA, N. A.

AID P - 2894

Subject : USSR/Medicine

Card 1/2 Pub. 37 - 11/20

Authors : Rakhmanova, P. I., Gadulin, Yu. I., Geminov, N. V., Kubatkin, V. I.,  
Levit, A. B., Martenson, V. N., Popova, N. A.

Title : Use of zooprophylaxis against malaria in building new populated  
Localities

Periodical : Gig. i san., 9, 48-49, S 1955

Abstract : Discusses preventive measures against mosquitoes in Pecherskiye  
Vyselki, a New development in the Kuybyshev Oblast', The editorial  
office considers the material of this article insufficient for  
sanitary evaluation, and recommends further studies, Chart.

Institutions: Institute of Malaria, Medical Parasitology and Helminthology,  
Ministry of Health, USSR; State Sanitary Inspection for the Kuyby-  
shev Hydroelectric Power Plant, Kuybyshev Antimalaria Station, and  
"Kuybyshevsel 'proyekt" Planning Office.

Submitted : Jl 22, 1954.

POPOVA, N. A. and GEORGIU, N. K.

"On the Diagnosis and Bloodless Reduction of Congenital Hip Dislocations"

report submitted at the Republic Session on Traumatology and Orthopedics,  
Kishinev, 9-10 January, 1961

So: Zhrevookhraneniye, Kishinev, No. 2, March-April 1961 pages 61-64

ACC NR: AT6036567

SOURCE CODE: UR/0000/66/000/000/0178/0179

AUTHOR: Zukhbaya, T. M.; Kalandarova, M. P.; Markelov, B. A.; Popova, N. A.;  
Sizan, Ye. P.; Khakhanova, N. L.

ORG: none

TITLE: The biological effect of 12 exposures to gamma irradiation on white mice  
[Paper presented at the Conference on Problems of Space Medicine held in Moscow  
from 24 to 27 May 1966]

SOURCE: Konferentsiya po problemam kosmicheskoy meditsiny, 1966. Problemy  
kosmicheskoy meditsiny. (Problems of space medicine); materialy konferentsii,  
Moscow, 1966, 178-179

TOPIC TAGS: ionizing radiation biologic effect, central nervous system, radiation  
sickness, mouse, radiation tolerance

ABSTRACT: Literature studies dealing with the effect of fractionated irradiation  
on injury and recovery processes in the animal organism have produced  
widely varying results. Furthermore, little data is available on the effect  
of repeated irradiation with small doses in the course of a year. In this  
series of experiments, 430 white mice were subjected to repeated monthly  
gamma irradiation on a GOP-1 installation in a dose of 12.5 r (dose power  
17  $\mu$ r/sec) with a total dose of 150 r/yr.

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ACC NR: AT6036567

A definite reaction of the hematopoietic system to irradiation was established. The most pronounced changes were observed in the white blood cell component. Study of the mitotic activity of corneal epithelium in experimental mice also showed a measurable reaction of the organism to irradiation. Chain motor conditioned reflexes in different periods after repeated irradiation indicate the sufficient compensation of radiation injuries in the central nervous system. Data from these experiments and results of statistical analysis indicate the existence of a definite reaction of white mice to twelve monthly gamma irradiations in the indicated dose. However, study of the dynamics of injury in a number of systems makes it seem possible that sufficiently complete recovery of the observed changes occurs owing to the compensatory mechanisms of the organism. [W.A. No. 22; ATD Report 66-116]

SUB CODE: 06 / SUBM DATE: 00May66

Card 2/2

POPOVA, N.A.

Aerosynoptic conditions of the origin of droughts and dry winds  
in the middle Volga Valley. Sbor. rab. Kuib. gidromet. obser.  
no.1:47-73 '64. (MIRA 17:12)

ACC NR: AP6031127

SOURCE CODE: UR/0197/66/000/008/0119/0126

AUTHOR: Germane, S. K.; Kimenis, A. A.; Popova, N. A.; Fridrikhson, E. Ya.

ORG: Institute of Organic Synthesis, AN LatSSR (Institut organicheskogo sinteza AN LatSSR)

TITLE: Toxicology of the new herbicide phenzaone (chlorazan) 1-phenyl-4-amino-5-chloropyridazone-6

SOURCE: AN LatSSR. Izvestiya, no. 8, 1966, 119-126

TOPIC TAGS: herbicide, toxicology, animal experiment, weed killer, pyridine, phenyl compound, mouse, rabbit

ABSTRACT: Results of a toxicological study of 1-phenyl-4-amino-5-chloro-pyridazone-6 showed that it possessed low toxicity for mice feeding upon it or receiving it interperitoneally. Field tests on rabbits showed that irritating amounts of the compound did not affect growth nor cause pathological changes in organs and tissues of rabbits. [WA-50; CBE No. 12]

SUB CODE: 06/ SUBM DATE: 19Mar66/ ORIG REF: 006/ OTH REF: 006/

Card 1/1

ГОРОВА, Надежда. Анж., ДИАНКОВА, Недка, инж., АУРПВА, Росица, инж.

New achievements in the field of spec. technology part no 1.  
33-38 '65.

1. NIKHIP, Sofia.

POPOVA, N.A., prof.

Characteristic course of brain tumors in elderly persons. Top.  
klin. pat. no.2:5-9 '61 (MIRA 16:12)

1. Iz nevrologicheskoj kliniki Moskovskogo oblastnogo nauchno-  
issledovatel'skogo klinicheskogo instituta imeni Vladimirskego.

KUZNETSOV, O.A.; POPOVA, N.A.

Experience in using the polarographic method in the analysis  
of raw minerals. Zav. lab. 28 no.9:1147-1148 '62.

(MIRA 16:6)

1. Zaveduyushchiy metodicheskim kabinetom Tsentral'noy laboratorii Krasnoyarskogo geologicheskogo upravleniya (for Kusnetsov).
2. Starshiy inzh.-khimik Tsentral'noy laboratorii Krasnoyarskogo geologicheskogo upravleniya (for Popova).  
(Krasnoyarsk--Minerals--Analysis)  
(Polarography)

POPOVA, N.A. (Moskva)

Localization of motor functions in the cerebral cortex. Zhur.  
nevr. i psikh. 61 no.12:1763-1771 '61. (MIRA 15:7)

(CEREBRAL CORTEX)

(BRAIN—LOCALIZATION OF FUNCTIONS)

TAMARIN, A.A., kand. tekhn. nauk. Prinimali uchastiye: VOLLEYDT, A.N., mlad. nauchnyy sotr.; POPOVA, N.A., mlad. nauchnyy sotr.; MASLOBOYSHCHIKOV, A.N., inzh.; KUDINOV, A.I.; PIROZHENIKOV, L.B.; SHITOVA, L.N., red. izd-va; SHERSTNEVA, N.V., tekhn. red.

[Instructions for production testing of large prestressed concrete elements] Ukazaniia po proizvodstvennym ispytaniiam krupnorazmernykh predvaritel'no napriazhennykh zhelezobetonnykh konstruksii. Moskva, Gosstroizdat, 1962. 128 p.

1. Akademiya stroitel'stva i arkhitektury SSSR. Institut of - (MIRA 15:9) ganizatsii, mekhanizatsii i tekhnicheskoy pomoshchi stroitel'stvu.
2. Rukovoditel' gruppy ispytaniy Nauchno-issledovatel'skogo instituta organizatsii, mekhanizatsii i tekhnicheskoy pomoshchi stroitel'stvu Akademii stroitel'stva i arkhitektury SSSR (for Tamarin).  
(Prestressed concrete—Testing)

39100  
S/169/62/000/006/032/093  
D228/D304

3.1220

AUTHOR: Popova, N. A.  
TITLE: Method of photometrically evaluating auroras according to the focal images of stars on photographs of C-130 (S-180) cameras

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 6, 1962, 24, abstract 66139 (V sb. Polyarn. siyaniya i svecheniye nochn. neba, no. 7, M., AN SSSR, 1961, 33-36)

TEXT: A method is stated for the photometric evaluation of auroral photographs obtained by means of full sky cameras. In it the focal images of stars served as the coordination standard. The astigmatism indigenous to optical camera systems is unequally reflected in the materials of different stations. Stellar images with a variable degree of deviation from the normal focal image were used for coordination, except in those cases when the stellar image had three or more astigmatic "tails". For the execution of absolute photometry there were sensitometric standards. Brightness

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39100  
S/169/62/000/006/082/093  
D228/D304

Method of photometrically ...

changes due to atmospheric absorption were taken into account by means of characteristic curves, constructed from the focal images of stars. Frames with weak radiances or none at all were selected as the reference frames. The closer the reference frame with sufficient stars to those with measurable objects, the smaller the displacement of the characteristic curve and the smaller the error. The weakening of the glitter of stars with increasing zenith distance was taken into account by means of multiplying the stellar catalog magnitudes by the secant of the zenith distance, which was determined from the mirror distortion curve. It is necessary to know the position of a photograph's zenith in order to determine the star's zenith distance. At stations where the camera centering was good, the upper mirror's center coincided with the zenith. For measuring the surface brightness of auroras it is convenient to change to stellar magnitudes with a quadratic degree:  $m/\text{sq. deg.} = M - 2.5 \log d$ , where  $d$  is the area in square degrees. The optical density of the gray wedge's stages was calculated from the data of the sensitometer record, after which a determination was made of the illumination quantity  $H$  for each stage from the formula:

Card 2/3

POPOVA, N.A.

**Determination of the ash content of a coal layer by graphs.**  
Razved. i okh. nedr 27 no.6:40-41 Je '61. (MIRA 14:9)

1. Irkutskoye geologicheskoye upravleniye.  
(Coal—Analysis)

POPOVA, N. A., CAND MED SCI, "DIAPHYSEAL FRACTURES OF THE  
FOREARM AND THEIR TREATMENT." MOSCOW, 1961. (MIN OF HEALTH  
USSR. CENTRAL INST FOR ADVANCED TRAINING OF PHYSICIANS). (KL-  
DV, 11-61, 229).

-277-

S/097/59/000/07/007/021  
E141/E164

AUTHORS: Chermashkin, V.G. (Engineer) and Popova, N.A. (Engineer)  
TITLE: Investigation of Properties of High Tensile Reinforcement for Pre-Stressed Reinforced Concrete

PERIODICAL: Beton i zhelezobeton, 1959, Nr 7, pp 307-310 (USSR)  
ABSTRACT: The investigated properties of high tensile reinforcing rods as far as strength is concerned comply with the requirements of GOST 7348-55 and 8480-57. The elasticity, characterized by relative elongation when testing reinforcement of periodic and circular profile of 3 mm diameter, was found not to comply with the standards, while circular reinforcing rod 5 mm in diameter does comply with the requirements. Tests of the reinforcing rod, both normal and tensioned, under high temperatures showed that the strength characteristics do not change when the temperature is not higher than 200 oC. Above this temperature, however, a quick reduction of strength is experienced, accompanied by increased elasticity. For the investigations reinforcing rods were chosen manufactured from steel, marks U7 and U8, and St. 70 and St. 45. The samples were 100 mm long. Table 1 gives the



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S/097/59/000/07/007/021  
E141/E164

Investigation of Properties of High Tensile Reinforcement for  
Pre-Stressed Reinforced Concrete

chemical composition of these marks of steel. Table 2 gives the results of the investigations, which show that the reinforcing rods comply with GOST standards in respect to intermittent resistance, limit of cold flow and the number of bends. Fig 1 gives "tension-deformation" diagram of high tensile reinforcing rods. Pre-stressed reinforced concrete constructions were reinforced with wires or batches which can be subjected to high temperature and, in the case of pretensioning, to high temperature effected by an electrothermal method. Reinforcing wires which are not tensioned were investigated in the following way: the wire was placed in a kiln between two anchors of a pulling machine and heated to a certain temperature for 30 minutes. Under these conditions, tensioning tests were carried out. Results of the tests on tensioned wires, subjected to a temperature of between 50 and 600 °C, are given in diagrams of Figs 2 and 3. These tests proved that a temperature of 200 °C is detrimental to the strength of

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S/097759/000/07/007/021  
E141/E164

Investigation of Properties of High Tensile Reinforcement for  
Pre-stressed Reinforced Concrete

the wire (similar results were obtained by K.V. Mikhaylov). Fig 4 shows curves of the relationship between changing intermittent resistance of pre-tensioned high tensile wire and temperature. Fig 5 shows diagrams of the relationship between changing intermittent resistances and limit of cold flow of high tensile wire and tempering temperature. Tests were carried out to define optimal tempering temperature. Testing wires were heated from 100 to 600 °C for 20 minutes, and then cooled in air and finally tested by tensioning. The results are shown in Fig 5. Fig 6 shows diagrams of the relationship of changing relative elongation of high tensile wire and tempering temperature. It was found that an optimal tempering temperature is within the interval 350-400 °C. This results in obtaining wires with the necessary elastic properties. Tests were also carried out on samples of wires after cold hardening and ageing. These samples were also elongated by 0.5-1.0%, boiled in water for 2 hours and then tensioned. The results of these

Card  
3/4

POPOVA, H.A., prof. (Moskva)

Progress in the study of encephalitis. *Klin.med.* 36 no.9:8-17  
8'58 (MIRA 11:10)

(ENCEPHALITIS,  
research, progr., review (Rus))

POPOVA, N.A., SMIRNOVA, G.G.

A typical forms of encephalitis [with summary in French]. Zhur.nevr.  
i psikh. 58 no.6:650-655 '58 (MIRA 11:7)

1. Nevrologicheskaya klinika (zav. - prof. N.A. Popova) Moskovskogo  
oblastnogo nauchno-issledovatel'skogo klinicheskogo instituta.  
(ENCEPHALITIS, case reports  
atypical cases (Rus))

INOZEMTSEV, Georgiy Aleksandrovich; SAPOZHNIKOV, M.B., redaktor; POPOVA,  
N.A., tekhnicheskii redaktor

[The beginning of the workers' movement in the Don region] U istokov  
rabochego dvizheniia na Donu. Rostov-na-Donu, Rostovskoe kn-vo,  
1956. 54 p. (MLRA 9:9)  
(Don Valley--Labor and laboring classes--History)

MANUCHARYAN, D.A.; KRYLOVA, N.P.; POPOVA, N.A.

Streptomycin and PAS in the treatment of ulcerative enterocolitis  
in tuberculosis. Probl. tuberk., Moskva no. 1:50-55 Jan-Feb 1953.

(GIML 24:2)

1. Professor for Manucharyan; Scientific Associate for Krylova and  
Popova. 2. Of Moscow Municipal Scientific-Research Tuberculosis In-  
stitute (Director -- Prof. V. L. Eynis).

POPOVA, E. D.

PEPRICHNEVA, P. A., SURKOVA, I. N., and POPOVA, E. D. "The use of pyrethrum preparations in the struggle against pediculosis", in the collection: *Voпросы krayevoy, obshchey i eksperim. parazitologii*, vol. 17, Moscow, 1947, p. 211-17.

SO: U-4393, 19 August 53, (Letopis 'Zhurnal 'nykh Statey', No. 22, 1949).

POPOVA, N. ~~E.~~, (Engr)

"Nonlinear Distortions in Wide-band Links of Multichannel, High-Frequency Telephone Systems." Cand Tech Sci, Moscow Electrical Engineering Inst of Communications, 4 Mar 54. Dissertation (Vechernyaya Moskva Moscow, 23 Feb 54)

SO: SUM 186, 19 Aug 1954

SHTAGER, Valeriy Vital'yevich; POPOVA, N.E., redaktor; BUSANKINA, N.G.,  
redaktor; SOKOLOVA, E.Ya., Tekhnicheskij redaktor.

[Band limiters and expanders and their application to telecommunication] Szhimateli-rasshiriteli i ikh primenenie v tekhnike dal'nei  
svyazi i radio, 1955. 58 p. (MLRA 9:4)  
(Telecommunication--Equipment and supplies)

ZISMAN, N.A., inzhener; POPOVA, N.E., inzhener; SHMIDEL', A.A., inzhener;  
YARTSEV, G.Ye., inzhener.

VS-3 apparatus for compositing steel circuits. Vest.sviazi 16 no.5:  
5-7 Je '56. (MLBA 9:8)  
(Telephone--Apparatus and supplies)

ZISMAN, N.A., inzhener; POPOVA, N.E., inzhener; SHMIDEL', A.A., inzhener;  
YARTSEV, G.Ye., inzhener.

VS-3 apparatus for composing steel circuits. Vest.sviazi 16 no.7:  
11-13 J1 '56. (Telegraph lines) (MIRA 9:9)

SHTAGER, Valeriy Vital'eyvich; POPOVA, N.E., otvetstvennyy red.; BROYT, E.M.,  
red.; MAZEL', Ye.I., tekhn-red.

[Reduction of noise in broadcasting] Podavlenie shumov v kanalakh  
veshchaniia. Moskva, Gos.izd-vo lit-ry po voprosam svyazi i radio,  
1957. 50 p. (MIRA 11:2)  
(Radiobroadcasting) (Noise)

MEDVEDOVSKAYA, B.I., inzh.; SHASTINA, Ye.A., inzh.; GORDON, Ye.Yu., inzh.;  
PROTSENKO, I.Ye., inzh.; LITVINOV, V.P., inzh.; SHISHKINA, E.I.,  
inzh.; POPOVA, N.E., otr.red.; SALIPAS, L.S., red.; KAPASHILOVA,  
S.F., tekhn.red.

[Handbook for the certification of multiplexing channels in domestic  
cable and overhead line communication systems] Rukovodstvo po paspor-  
tizatsii kanalov otechestvennykh sistem uplotneniia vozdushnykh i  
kabel'nykh lini svyazi. Moskva, Gos.izd-vo lit-ry po voprosam  
svyazi i radio, 1960. 261 p. (MIRA 13:9)

1. Russia (1923- U.S.S.R.) Glavnoye upravleniye mezhdugorodnoy  
telefonno-telegrafnoy svyazi.  
(Telecommunication)

ROZHDESTVENSKIY, Rostislav L'vovich; POPOVA, N.E., otv.red.; RYAZANTSEVA,  
M.M., red.; SHEPHER, G.I., tekhn.red.

[Apparatus for the transmission of broadcasting programs through  
duplex channels of high-frequency telephone systems] Apparatura  
dlia peredachi program veshchaniia po sdvoennym kanalam sistem  
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sviazi i radio, 1960. 38 p. (MIRA 13:5)  
(Radiotelephone)

POLEKHIN, Sergey Illarionovich; POPOVA, N.E., otv. red.;  
YAKOBSON, A.Kh., red.

[Theory of wire communication] Teoriia sviazi po provodam.  
Moskva, Sviaz', 1965. 374 p. (MIRA 18:7)

SOBOLEV, M.P., inzh.; POPOVA, N.E., kand.tekhn.nauk

High-frequency KV-12 telephone apparatus. Vest. sviazi 23 no.3:9-12  
Mr '63. (MIRA 16:3)

(Telephone—Equipment and supplies)

ABOLITS, Izrail' Abramovich, dots.; BASIK, Il'ya Vasil'yevich,  
starshiy nauchnyy sotr.; REZVYAKOV, Aleksandr Petrovich,  
dots.; YUDIN, Anatoliy Ivanovich, dots. Prinsipal uchastiye  
BENEDIKTOV, G.A.; KOSECHYEV, I.A., otv. red.; POPOVA, N.E.,  
otv. red.; DIKAREVA, A.I., red.; MARKOCH, K.G., tekhn. red.

[Long-distance communications] Dal'nisai sviaz'. [By] I.A.Abolits  
i dr. Moskva, Sviaz'izdat, 1962. 621 p. (MIRA 15:7)  
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POPOVA, N.E., kand.tekhn.nauk; PETRUSHIN, I.P., inzh.

Design and schematics of the V-60-S apparatus. Vest. svyazi 21  
no.12:6-9 D '61. (MIRA 14:12)  
(Telephone--Equipment and supplies)

POPOVA, N.E., kand.tekhn.nauk; PETRUSHIN, I.P., inzh.

V-60-S terminal apparatus for high-frequency telephone systems.  
Vest. sviatni 21 no.9:11-13 S '61. (MIRA 11:9)  
(Telephone--Equipment and supplies)

KOSHCHEYEV, Ivan Alekseyevich; REZVYAKOV, Aleksandr Petrovich; POPOVA, N.E.,  
starshiy nauchnyy sotr., kand. tekhn. nauk, otv. red.; BALAKIREV,  
A.F., red.; SHEFER, G.I., tekhn. red.

[Fundamentals of the theory of electrical communications and long-  
distance communications] Osnovy teorii elektricheskoi svyazi i dal'-  
niaia svyaz'. Moskva, Gos. izd-vo lit-ry po voprosam svyazi i radio,  
1961. 398 p. (MIRA 14:11)

1. Tsentral'nyy nauchno-issledovatel'skiy institut svyazi (for Popova).  
(Telecommunication)

KLIMOV, Mikhail Aleksandrovich; RAZUMOV, Leonid Davydovich;  
FOPOVA, N.E., otv. red.; BATRAKOVA, T.A., red.

[Protection of high-frequency cables from the interfering action of electromagnetic fields] Zashchita tsepei vysokochastotnykh kabelei ot meshaiushchego vlianiia elektromagnitnykh polei. Moskva, Izd-vo "Sviaz'," 1964.  
68 p. (MIRA 18:1)

13-III-4

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METALLURGICAL LITERATURE CLASSIFICATION

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

1ST AND 2ND ORDERS      PROCESSES AND PROPERTIES INDEX

12

*ca*

The decomposition on storage of proteins in salted Sol  
H. N. Aleev, N. E. Pogoda and N. D. Beterzhnov. *Voprosy*  
*Polezny 9*, No. 6, 17-20 (1961). Sol nonprotein com-  
stituents form and accumulate. The proteolytic ferment-  
are not completely inactivated by the salt. F. H. R.

ASB-51A METALLURGICAL LITERATURE CLASSIFICATION

GROUPS      SUBGROUPS      LETTERS      NUMBERS

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	00
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POPOVA, N.G., kand. ekonom. nauk; VEREMEY, Ye.N.; MUROMTSEVA, G.N.

Economic losses caused by increasing the duration of construction and modernization of mining enterprises. Gor. zhur. no.6:29-31 Je '65.

(MIRA 18:7)

1. Dnepropetrovskiy gornyy institut (for Popova, Veremey). 2. Institut ekonomiki AN UkrSSR (for Muromtseva).

TURSUNOV, Z.T.; POPOVA, N.G.; BELOVA, E.S.

Effect of various beverages on urine secretion at high temperatures. Izv.AN Uz.SSR.Ser.med. no.4:47-58 '58.  
(MIRA 12:5)

1. Institut krayevoy meditsiny AN UzSSR.  
(URINE--SECRETION) (HEAT--PHYSIOLOGICAL EFFECT)

ГОРОВА, Н.И., Cand Med Sci —(disc) "Nerves of the parotid gland  
in ~~man and some~~ <sup>humans</sup> ~~animals~~ <sup>cephalin</sup>". Ryazan', 1958. 16 pp. (Ryazan' Med Inst  
in Acad I.P.Pavlov. Chair of Normal Anatomy). 200 copies.  
(KL, 3<sup>rd</sup>-58, 108).

46

RECERITA MEDICA Sec 6 Vol 13/1 Internal Med. Jan 59

477. THE TREATMENT OF SUBTROPICAL ANAEMIAS WITH FOLIC ACID, VITAMIN B<sub>12</sub> AND IRON (Russian text) - Likhtsier I. B., Popova N. I., Blumental R. F. and Lavrova N. N. Clin. for Intern. Dis. of the Stalingrad Med. Inst. - PROBL. GEMATOL. PEREL. EROVI 1956, 1/6 (25-32) illus. 4

The essential factors in the pathogenesis of subtropical anaemias consist in disturbances of the metabolism of folic acid, vit. B<sub>12</sub> and Fe, which vary in degree from case to case, and in which the amounts necessary for normal haemopoiesis are variable. In the therapeutic use of these substances and their combinations, accordingly, individual variations in response are found. Vit. B<sub>12</sub> alone in high dosage gave a good effect in a number of cases but the lack of response in some other cases was due to simultaneous disturbance of Fe balance: if Fe was given after vit. B<sub>12</sub> then a good result was obtained. It could be presumed in other cases that simultaneous deficiency of folic acid impaired the utilization of vit. B<sub>12</sub> as treatment with it gave results in a significant percentage of cases. This might be due to its positive influence on vit. B<sub>12</sub> utilization. Folic acid treatment in some cases did not give an adequate rise of Hb level and a subsequent course of Fe was necessary. Good results were frequently obtained from combinations of folic acid or vit. B<sub>12</sub> with Fe. There is an intimate bond metabolically between folic acid, Fe and vit. B<sub>12</sub>. The serum Fe level falls after administration of vit. B<sub>12</sub> and folic acid, the curve then returning to normal. One of the important ways in which vit. B<sub>12</sub> act is by promoting Fe assimilation by the bone marrow. The reticulocyte crisis acts as an indicator of the effect of one or the other preparation but it must be stressed that such crisis may occur following folic acid or vit. B<sub>12</sub> treatment but without subsequent Hb increase due to a simultaneous lack of Fe.

Krymskii - Moscow (S)

FCFCVA, N. I.

"Catalytic Hydrogenation of Unsaturated Hydrocarbons With a Conjugated System of Double Bonds." Thesis for degree of Cand. Chemical Sci. Sub 21 Jun 50, Moscow Order of Lenin State U imeni M. V. Lomonosov

■ Summary 71, 4 Sep 52, Dissertations Presented for Degrees in Science and Engineering in Moscow in 1950. From Vechernyaya Moskva, Jan-Dec 1950.

POPOVA, N. I.

Cand Chem Sci

Dissertation: "Catalytic Hydrogenation of Unsaturated Hydrocarbons with a  
Conjugated System of Double Bonds." 21/6/50

Moscow Order of Lenin State V imeni M. V. Lomonosov.

SO Vecheryaya Moskva  
Sum 71

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KAZANSKIY, B. A., POPOVA, N. I.

Diolefins

Catalytic hydrogenation of diolefins with a conjugated system of double bonds.  
Part 1. Hydrogenation of diisocrotyl. Izv. AN SSSR Otd. khim. nauk, No. 3,  
1952.

9. Monthly List of Russian Accessions, Library of Congress, November 1952. Unclassified.

2

POPOVA, N.I.

Chemical Abst.  
Vol. 48 No. 9  
May 10, 1954  
Organic Chemistry

4  
Chem  
Catalytic hydrogenation of doubly unsaturated compounds with conjugated systems of double bonds. I. Hydrogenation of biacetylene. S. A. Kazanski and N. I. Popova. Bull. Acad. Sci. U.S.S.R., Div. Chem. Sci. 1952, 408-17 (Engl. translation).—See C.A. 47, 4831h. H. L. H.

Popova, N. I.

✓ Regeneration of silica gel after chromatographic adsorption analysis of primary tar. N. I. Popova and O. G. Klykova. *Izv. Vses. Nauch. Tsentra. Inst. Khim. Uche. 1, No. 1/3, 177-84 (1983); Refer. Zhur. Khim. 1984, No. 47009.*— $\text{SiO}_2$  gel contaminated with high-mol. org. products in consequence of adsorption analysis of coal tar is regenerated by heating at  $340-6^\circ$  in a current of moist air. Thereby, the activity of the sorbent is restored to 80-8% of its initial activity. M. Romsh

FU

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KALECHITS, I.V.; POPOVA, N.I.; SALINGAREYEVA, F.G.

~~XXXXXXXXXXXXXXXXXXXX~~  
Chemical composition of primary tar from Cherenkovo coal. Part 1.  
Use of chromatographic adsorption analysis in the study of primary  
tar. Trudy Vest.-Sib.fil.AN SSSR. no.3:5-12 '55. (MIRA 9:4)  
(Cherenkovo Coal Basin--Coal tar) (Chromatographic analysis)

KALECHITS, I.V.; POPOVA, N.I.; SHOROKHOVA, M.V.

Chemical composition of primary tar from Cherenkhevo coal. Part 2.  
Adsorption series of components of primary tar. Trudy Vest.-Sib.  
fil.AN SSSR. no.3:13-18 '55. (MLRA 9:4)  
(Cherenkhevo Coal Basin--Coal-tar products)(Chromatographic analysis)

KALETCHITS, I.V.; SALIMGAREYEVA, P.G.; POPOVA, N.I.; KURBAN-GALEYEVA, D.Kh.;  
KLYKOVA, G.G.

Chemical composition of primary tar from Cherekhovo coal. Part 3.  
Detailed group and functional composition of neutral compounds.  
Trudy Vost.-Sib.fil.AN SSSR. no.3:19-24 '55. (MIRA 9:4)  
(Cherekhovo Coal Basin--Coal-tar products) (Chromatographic analysis)

POPOVA, N.I.; SALIMGAREYEVA, F.G.; KLYKOVA, G.G.; SHOROKHOVA, M.V.; KURBAN-  
GALEYEVA, D.Kh.; KALECHITS, I.V.

Chemical composition of primary tar from Cherenkhovo coal. Part 4.  
Detailed group and functional composition of neutral compounds in  
the liquid-phase hydrogenated tar. Trudy Vost.-Sib.fil.AN SSSR, no.3:  
25-29 '55. (MLRA 9:4)  
(Cherenkhovo Coal Basin--Coal-tar products)(Chromatographic analysis)

*Chem* 2025. CHEMICAL COMPOSITION OF TAR FROM LOW TEMPERATURE CARBONIZATION OF  
CHERESHNOV BASIN COAL. VI. GROUP COMPOSITION OF THE WIDE FRACTION OF  
MEDIUM TEMPERATURE COAL TAR FROM CHERESHNOV WASHI COALS. Popsya, I.I.,  
Kurban-Galeeva, D.Kh. and Sherokhova, M.V. (Trud. Vest. Sib. Fil. Akad.  
Nauk SSSR, Ser. Khim. (Proc. E. Sib. Branch Acad. Sci. U.S.S.R., Ser. Chem.),  
1955, (3), 35-39; see abstr. in Chem. Abstr., 1956, vol. 50, 7429).

POPOVA, N.I.; SHOROKHOVA, M.V.

Chemical composition of primary tar from Chermkhevo coal. Part 7.  
Nature of the neutral oxygen compounds separated from the crude  
fraction of the Chermkhevo primary tar. Trudy Vost.-Sib.fil.AN  
SSSR no.3:40-43 '55. (MLRA 9:4)  
(Chermkhevo Coal Basin--Coal-tar products)

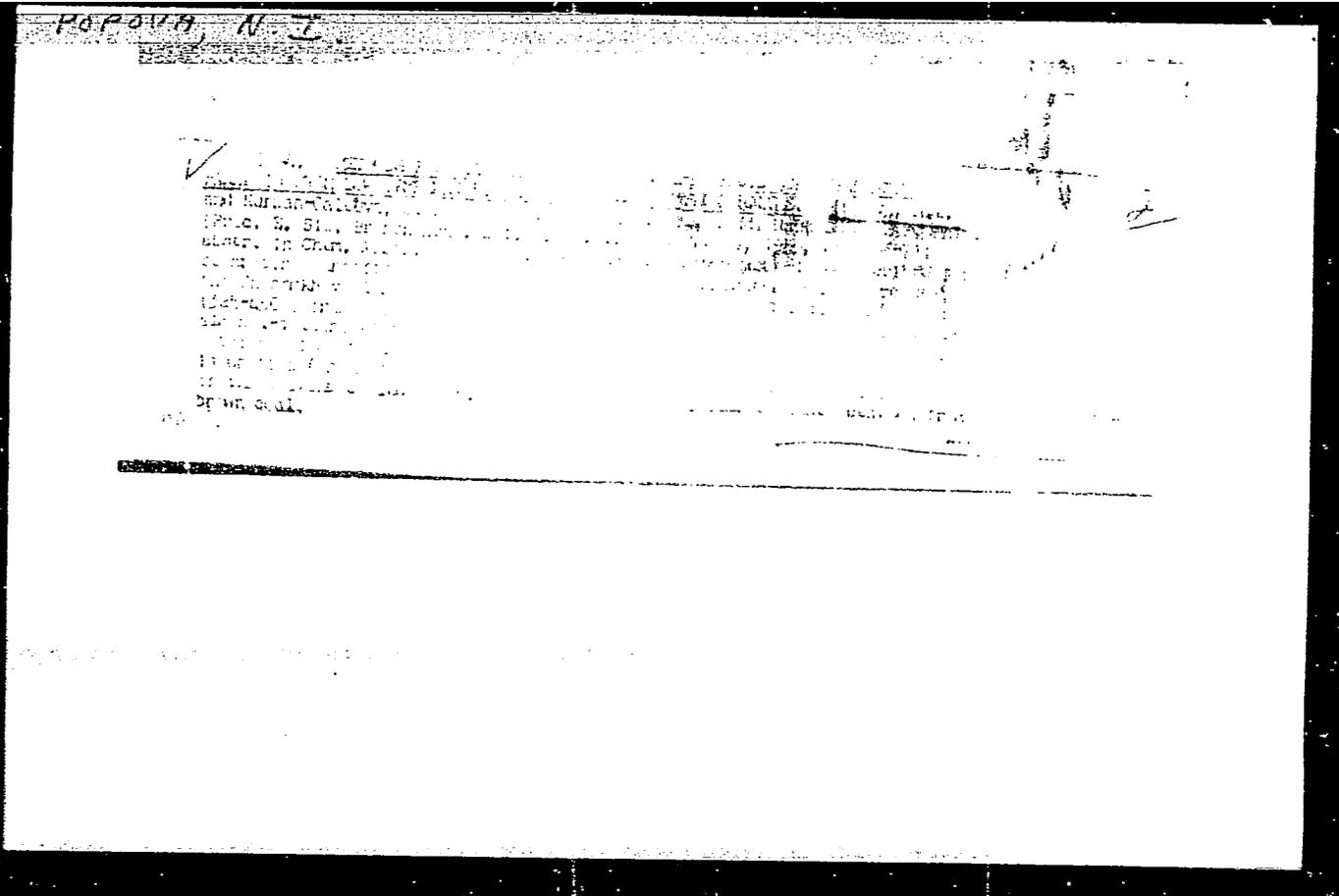
"APPROVED FOR RELEASE: 08/25/2000

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...operating capacity of silicon ...  
...to the poisoning of its active ...  
...C.A.

APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R001342430004-0"



POPOVA, N. I.

✓ 1163. APPLICATION OF CHROMATOGRAPHIC ADSORPTION ANALYSIS TO THE  
EXAMINATION OF PRIMARY TARS AND THEIR HYDROXYMETHYL PRODUCTS. Polonskiy, I. V.  
and Popova, N. I. (Trudy Kon. zhil. Vost. Akad. Nauk SSSR, Ser. Khim. Nauk,  
Chem., Acad. Sci. U.S.S.R.), 1955, vol. 5, 97-121; RUSSIAN. D. D. KHE.  
(Ref. J. Chem., Moscow), 1955, (10), 30075).

*East Siberian April 25 1955*

POPOVA, N.I.

Using propylene in the industry of basic organic synthesis. Trudy  
Vost.-Sib.fil.AN SSSR no.4:37-57 '56. (MLRA 9:12)  
(Propene)

*Резюме*  
POPOVA, N.I.; BELYAYEV, V.I.; STUKOVA, R.N.

Studying catalytic oxidation of propylene. Izv.vost.fil.AN SSSR  
no.7:40-50 '57. (MIRA 10:10)

1. Ural'skiy filial AN SSSR.  
(Propene) (Acrolein) (Copper oxides)

POPOVA, N.I.; VERMEL', Ye.Ye.

Catalytic oxidation of propylene. Report No.2: Spectrophotometric  
analysis of carbonyl compound mixtures. Izv. vost. fil. AN SSSR  
no.9:74-85 '57. (MIRA 11:1)

1. Vostochno-Sibirskiy filial AN SSSR.  
(Carbonyl compounds--Spectra)

17/10/47, MJ

20-6-22/47

**AUTHORS:**

Popova, N. I. , Stukova, R. H. , and Vermel', Ye. Ye.

**TITLE:**

The Influence of the Composition of the Gas Mixture on the Yield of Carbonyl Compounds in the Oxidation Reaction of Propylene Over a Copper Catalyst (O vliyanii sostava gazovoy smesi na vykhod karbonil'nykh soyedineniy v reaktsii okisleniya propilena nad mednym katalizatorom)

**PERIODICAL:**

Doklady AN SSSR, 1957, Vol. 117, Nr 6, pp. 1000 - 1002 (USSR)

**ABSTRACT:**

In connection with the discovery of a new method of the production of acrolein by direct oxidation of propylene over copper catalysts the importance of acrolein, as initial substance for the synthesis of many valuable products, rapidly increased. In spite of a considerable number of patents there is only little to read on this reaction in scientific publications. The highly selective action of cuprous oxide on the oxidation of propylene was already made known (reference 2). The present work studied the influence of the oxygen-concentration in the gas mixture, in order to determine the optimum conditions of the production of acrolein. It is known that it often is difficult to obtain repetitionable results in the oxidation reaction due to the instability of the catalyst. Here it is important that cuprous oxide is metastable at 350°C. The catalyst was, as the authors say, "trained", i.e. a gas mixture of stable

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The Influence of the Composition of the Gas Mixture on the Yield of Carbonyl Compounds in the Oxidation Reaction of Propylene Over a Copper Catalyst

composition was let through in the course of one hour, whereafter the temperature in the zone of the catalyst usually became stable. Sometimes the catalyst was "trained" with another gas mixture than was later on used in the experiment. The test results (table 1) show that the reduction of the quantity of oxygen in the gas mixture increase the yield of carbonyl compounds (calculated on oxygen). The stability of the catalyst, however, is in this connection reduced. The activity of the catalyst is regenerated by the increase in the oxygen concentration (e.g. in "training" to the ratio propylene : oxygen = 6 : 1). A steadier yield (25,5 - 32,4 %) of carbonyl compounds is obtained at an above-given ratio of 10:1 and less. It was spectrophotometrically proved that these carbonyl compounds consist of 60 to 70 % acrolein. After the condensation and distillation of propylene 4 fractions were obtained. Fraction I (33 - 49 °C) consisted of 80 % acrolein, water and traces of acetone and formaldehyde. Fraction II (49-50 °C, figure 1) is acrolein. Fraction III (50-68,5 °C) contains acrolein and other higher boiling carbonyl compounds. Because of the small quantity of fraction III it could not be thoroughly investigated. After all, a small quantity of ozones was obtained from it, which indicates the

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The Influence of the Composition of the Gas Mixture on the Yield of Carbonyl Compounds in the Oxidation Reaction of Propylene Over a Copper Catalyst

presence of methyl-glyoxal. The rest (above 68,5°C) apparently represents a polymer mixture of acrolein and methylglyoxal. This investigation of the fractions confirmed the data on the high selectivity of the copper catalyst (reference 2). At 350°C no dioxy-compounds were obtained. This indicates the formation of methyl glyoxal as an oxidation product of propylene and not of acrolein. Other products can also be produced by means of the reaction under review. There are 1 figure, 1 table, and 5 references, 4 of which are Slavic.

ASSOCIATION: Institute for Chemistry of the East-Siberian Branch AN USSR  
(Institut khimii Vostochno-Sibirskogo filiala Akademii nauk SSSR)

PRESENTED: August 10, 1957, by B. A. Kazanskiy, Academician

SUBMITTED: August 9, 1957

AVAILABLE: Library of Congress

Card 3/3

5(3)  
AUTHORS: Kazanskiy, B.A., Gostunskaya, I.V. SOV/55-58-3-25/30  
Popova, N.I. and Dobroserdova, N.B.  
TITLE: Catalytic Hydrogenation of Diene Hydrocarbons With Conjugate  
System of Double Bonds (Kataliticheskoye gidrirovaniye  
diyenovykh uglevodorodov s sopryazhennoy sistemoy dvoynykh  
svyazey)  
PERIODICAL: Vestnik Moskovskogo universiteta, Seriya matematiki, mekhaniki,  
astronomii, fiziki, khimii, 1958, Nr 3, pp 207-216 (USSR)  
ABSTRACT: The present paper contains no new results but gives a survey  
of the western and eastern investigations during the last  
40-50 years concerning the catalytic hydrogenation of diene  
with conjugate system of double bonds. Among the eastern  
publications there are mentioned the papers of S.V. Lebedev,  
and then numerous present investigations of the authors, further-  
more papers of R.Ya. Levina, V.R. Skvarchenko, N.I. Tyun'kina,  
N.D. Zelinskiy, M.Yu. Lukina, and A.I. Malyshev. There are 3  
tables, and 36 references, 22 of which are Soviet, 6 American,  
5 German, 2 English, and 1 French.  
ASSOCIATION: Kafedra khimii nefiti (Chair of Petroleum Chemistry)  
SUBMITTED: July 1, 1957  
Card 1/1

5.1190

5(3)

AUTHORS:

Popova, N.I.; Belyayev, V.I.,  
Vermel', Ye.Ye.

87843

S/153/59/002/06/021/029

B115/B000

TITLE:

On the Changed Composition of Phases of a Copper Oxide  
Catalyst During the Oxidation of Propylene to Acrolein

PERIODICAL:

Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i khimicheskaya  
tehnologiya, 1959, Vol 2, Nr 6, pp 926-929 (USSR)

ABSTRACT:

A brief survey of relevant publications is given by the authors,  
and S.Z.Roginskiy and others (Ref 5), O.V.Isayev, M.Ya.  
Kushnerov and L.Ya.Margolis (Ref 7) are mentioned in this con-  
nection. In this paper, the relation between the change of  
phase composition of the catalyst and its activity has been  
investigated, and a number of catalysts have been analyzed  
(after oxidation of the propylene at 368 to 370° for one hour)  
according to Tananayev (Ref 8). The activity of the catalyst  
was related to the yield of carbonyl compounds in unit of time  
(related to oxygen). Results are given in table 1. They show  
that the change of the chemical composition of the catalyst  
depends chiefly on the CuO concentration in the carrier. With  
a CuO content of 1.5% in the carrier, the catalyst changes to

Card 1/3

On the Changed Composition of Phases of a  
Copper Oxide Catalyst During the Oxidation of  
Propylene to Acroleine

67843  
S/153/59/002/06/021/029  
B115/B000

assume the composition of a mixture of  $\text{Cu}_2\text{O}$  (about 70%) and  $\text{CuO}$  (about 30%) a short time after the passage of the propylene-oxygen mixture. With catalysts having a higher (3 to 5%) content of  $\text{CuO}$ , the composition of the catalyst after the reaction is  $\text{CuO} + \text{Cu}_2\text{O} + \text{Cu}$ . The yield of carbonyl compounds is considerably reduced by the appearance of metallic copper in the catalyst. The introduction of  $\text{Ag}$  or  $\text{Al}_2\text{O}_3$  into the catalyst has an analogous effect. Analogous results were obtained, when silicon carbide was used as carrier (Table 2), with the degree of inactivation depending, however, on the oxygen content in the gas mixture, too. An additional reason for the inactivation of the catalysts is the sintering process of  $\text{Cu}_2\text{O}$  which loses thereby its capacity to reduce itself to  $\text{Cu}_2\text{O}$ . This was established to occur with copper oxide catalysts annealed at different temperatures (see Table 3). Catalysts annealed at higher temperatures are less active, as is evident from the results. A further reason for the inactivation of the catalysts is the polymerization of acroleine on

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On the Changed Composition of Phases of a  
Copper Oxide Catalyst During the Oxidation of  
Propylene to Acroleine

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their surfaces. The activity of the catalyst may be recovered in a simple way by passage of a mixture with an elevated oxygen content. It was also shown (Figure) that CuO had a stabilizing effect on the activity of the copper catalyst during the oxidation of propylene to acroleine. There are 1 figure, 3 tables, and 8 references, 6 of which are Soviet. 4

ASSOCIATION: Vostochno-sibirekiy filial SO AN SSSR (East Siberian Branch of the Siberian Department of the AS USSR)

Card 3/3

LATYSHEV, V.P.; POPOVA, N.I.

Studying the catalytic oxidation of propylene. Report No.3:  
Methods for determining acrolein in products from the catalytic  
oxidation of propylene over a copper catalyst. Izv. Sib. otd.  
AN SSSR no.9:48-51 '59 (MIRA 13:3)

1. Votochno-Sibirskiy filial Sibirskogo otdeleniya AN SSSR.  
(Acrolein) (Propylene) (Oxidation)

5(2, 3)

AUTHORS:

Popova, N. I., Vermel', Ye. Ye.

SOV/20-124-4-31/67

TITLE:

Changes in the Chemical Composition and Activity of Copper Catalysts During the Oxidation of Propylene to Acrolein  
(Ob izmenenii khimicheskogo sostava i aktivnosti mednykh katalizatorov v protsesse okisleniya propilena v akrolein)

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 124, Nr 4, pp 842-845  
(USSR)

ABSTRACT:

In the investigation of oxidation reactions the change mentioned in the title is frequently observed. The authors contradict G. K. Boreskov (Ref 1) who stated that these processes have a general character. They give a survey of corresponding publications (Refs 2-5). It was interesting to study the transformations of copper catalysts with different Cu content on a carrier according to chemical methods whereby the qualitative and quantitative changes in the chemical composition can be observed. For this purpose, the authors produced catalysts with CuO, Cu<sub>2</sub>O and Cu according to the methods mentioned in references 3, 5, 6. They were put on silicon carbide in concentrations which corresponded to 1.5, 3.0 and 5.0 wt%.

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